

SEQUENCE LISTING

<110> St. George-Hyslop, Peter H.
Rommens, Johanna
Fraser, Paul E.

<120> Alzheimer's Related Proteins and Methods
of Use

<130> 1034/1F810-US1

<140> 09/227,725

<141> 1999-01-08

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<170> FastSEQ for Windows Version 3.0

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<212> PRT

<213> Homo Sapien

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Arg	Glu	Arg	Gln	Glu	His	Asn	Asp	Arg	Arg	Ser	Leu	Gly	His	Pro	Glu
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His	Val	Ile	Met	Leu	Phe	Val	Pro	Val	Thr	Leu	Cys	Met	Val	Val	Val
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Val	Ile	His	Ala	Trp	Leu	Ile	Ile	Ser	Ser	Leu	Leu	Leu	Leu	Phe	Phe
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Phe	Ser	Phe	Ile	Tyr	Leu	Gly	Glu	Val	Phe	Lys	Thr	Tyr	Asn	Val	Ala
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	Ser	Glu	Glu	Trp	Glu	Ala	Gln	Arg	Asp	Ser	His	Leu	Gly	Pro	His	Arg			
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	Gly	Leu	Cys	Leu	Thr	Leu	Leu	Leu	Leu	Ala	Ile	Phe	Lys	Lys	Ala	Leu			
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	Thr	Asp	Tyr	Leu	Val	Gln	Pro	Phe	Met	Asp	Gln	Leu	Ala	Phe	His	Gln			
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	Phe	Tyr	Ile																
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 <212> PRT
 <213> Homo Sapien

<400> 2

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Ser	Gln	Glu	Asn	Glu	Glu	Asp	Gly	Glu	Glu	Asp	Pro	Asp	Arg	Tyr	Val
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Cys	Ser	Gly	Val	Pro	Gly	Arg	Pro	Pro	Gly	Leu	Glu	Glu	Glu	Leu	Thr
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Leu	Lys	Tyr	Gly	Ala	Lys	His	Val	Ile	Met	Leu	Phe	Val	Pro	Val	Thr
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Leu	Cys	Met	Ile	Val	Val	Val	Ala	Thr	Ile	Lys	Ser	Val	Arg	Phe	Tyr
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Lys	Tyr	Arg	Cys	Tyr	Lys	Phe	Ile	His	Gly	Trp	Leu	Ile	Met	Ser	Ser
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Leu	Met	Leu	Leu	Phe	Leu	Phe	Thr	Tyr	Ile	Tyr	Leu	Gly	Glu	Val	Leu
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Lys	Thr	Tyr	Asn	Val	Ala	Met	Asp	Tyr	Pro	Thr	Leu	Leu	Leu	Thr	Val
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Leu	Val	Phe	Ile	Lys	Tyr	Leu	Pro	Glu	Trp	Ser	Ala	Trp	Val	Ile	Leu
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			260					265					270		
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Pro	Glu	Met	Glu	Glu	Asp	Ser	Tyr	Asp	Ser	Phe	Gly	Glu	Pro	Ser	Tyr
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Pro	Glu	Val	Phe	Glu	Pro	Pro	Leu	Thr	Gly	Tyr	Pro	Gly	Glu	Glu	Leu
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Phe	Tyr	Ser	Val	Leu	Val	Gly	Lys	Ala	Ala	Ala	Thr	Gly	Ser	Gly	Asp
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Trp	Asn	Thr	Thr	Leu	Ala	Cys	Phe	Val	Ala	Ile	Leu	Ile	Gly	Leu	Cys
385					390					395					400
Leu	Thr	Leu	Leu	Leu	Leu	Ala	Val	Phe	Lys	Lys	Ala	Leu	Pro	Ala	Leu
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Pro	Ile	Ser	Ile	Thr	Phe	Gly	Leu	Ile	Phe	Tyr	Phe	Ser	Thr	Asp	Asn
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<212> PRT

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<220>

<221> UNSURE

<222> (115)

<223> Xaa can be any amino acid

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Thr	Thr	Ser	Arg	Ala	Gly	His	Leu	Ala	Gly	Pro	Glu	Pro	Ala	Pro	Pro
65					70					75					80
Pro	Pro	Pro	Pro	Pro	Arg	Glu	Pro	Phe	Ala	Pro	Ser	Leu	Gly	Ser	Ala
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Phe	His	Leu	Pro	Asp	Ala	Pro	Pro	Ala	Ala	Ala	Ala	Ala	Ala	Leu	Tyr
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Tyr	Ser	Xaa	Ser	Thr	Leu	Pro	Ala	Pro	Pro	Arg	Gly	Gly	Ser	Pro	Leu
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Ala	Pro	Glu	Gly	Ala	Thr	Tyr	Ala	Ala	Pro	Arg	Gly	Ser	Ser	Pro	Lys
145					150					155					160
Gln	Ser	Pro	Ser	Arg	Leu	Ala	Lys	Ser	Tyr	Ser	Thr	Ser	Ser	Pro	Ile
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Asn	Ile	Val	Val	Ser	Ser	Ala	Gly	Leu	Ser	Pro	Ile	Arg	Val	Thr	Ser
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Thr	Ala	Thr	Leu	Gln	Arg	Pro	Gly	Ser	Leu	Ala	Ala	Gly	Ser	Arg	Ala
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Ser	Tyr	Ser	Ser	Gln	His	Gly	His	Leu	Gly	Pro	Glu	Leu	Arg	Ala	Leu
			260					265					270		
Gln	Ser	Pro	Glu	His	His	Ile	Asp	Pro	Ile	Tyr	Glu	Asp	Arg	Val	Tyr
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Gln	Lys	Pro	Pro	Met	Arg	Ser	Leu	Ser	Gln	Ser	Gln	Gly	Asp	Pro	Leu
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Pro	Gly	Val	Asp	Ser	Val	Pro	Leu	Gln	Arg	Thr	Gly	Ser	Gln	His	Gly
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Gly	Pro	Ala	Ser	Asn	Tyr	Ala	Asp	Pro	Tyr	Arg	Gln	Leu	Gln	Tyr	Cys
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Pro	Ser	Val	Glu	Ser	Pro	Tyr	Ser	Lys	Ser	Gly	Pro	Ala	Leu	Pro	Pro
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Pro	Arg	Glu	Phe	Gly	Trp	Arg	Asp	Pro	Glu	Leu	Pro	Glu	Val	Ile	Gln
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Met	Leu	Gln	His	Gln	Phe	Pro	Ser	Val	Gln	Ser	Asn	Ala	Ala	Ala	Tyr
			420					425					430		
Leu	Gln	His	Leu	Cys	Phe	Gly	Asp	Asn	Lys	Ile	Lys	Ala	Glu	Ile	Arg
	435						440					445			

Arg	Gln	Gly	Gly	Ile	Gln	Leu	Leu	Val	Asp	Leu	Leu	Asp	His	Arg	Met
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Thr	Glu	Val	His	Arg	Ser	Ala	Cys	Gly	Ala	Leu	Arg	Asn	Leu	Val	Tyr
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Gly	Lys	Ala	Asn	Asp	Asp	Asn	Lys	Ile	Ala	Leu	Lys	Asn	Cys	Gly	Gly
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Ile	Pro	Ala	Leu	Val	Arg	Leu	Leu	Arg	Lys	Thr	Thr	Asp	Leu	Glu	Ile
			500					505					510		
Arg	Glu	Leu	Val	Thr	Gly	Val	Leu	Trp	Asn	Leu	Ser	Ser	Cys	Asp	Ala
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Leu	Lys	Met	Pro	Ile	Ile	Gln	Asp	Ala	Leu	Ala	Val	Leu	Thr	Asn	Ala
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Arg	Lys	Ile	Gln	Leu	His	Ser	Ser	Gln	Val	Leu	Arg	Asn	Ala	Thr	Gly
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Cys	Leu	Arg	Asn	Val	Ser	Ser	Ala	Gly	Glu	Glu	Ala	Arg	Arg	Arg	Met
			580					585					590		
Arg	Glu	Cys	Asp	Gly	Leu	Thr	Asp	Ala	Leu	Leu	Tyr	Val	Ile	Gln	Ser
		595					600					605			
Ala	Leu	Gly	Ser	Ser	Glu	Ile	Asp	Ser	Lys	Thr	Val	Glu	Asn	Cys	Val
	610					615					620				
Cys	Ile	Leu	Arg	Asn	Leu	Ser	Tyr	Arg	Leu	Ala	Ala	Glu	Thr	Ser	Gln
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Gly	Gln	His	Met	Gly	Thr	Asp	Glu	Leu	Asp	Gly	Leu	Leu	Cys	Gly	Glu
				645					650					655	
Ala	Asn	Gly	Lys	Asp	Ala	Glu	Ser	Ser	Gly	Cys	Trp	Gly	Lys	Lys	Lys
			660					665					670		
Lys	Lys	Lys	Lys	Ser	Gln	Asp	Gln	Trp	Asp	Gly	Val	Gly	Pro	Leu	Pro
		675				680						685			
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Thr	Leu	Glu	Gly	Ala	Ala	Gly	Ala	Leu	Gln	Asn	Leu	Ala	Ala	Gly	Ser
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Trp	Lys	Trp	Ser	Val	Tyr	Ile	Arg	Ala	Ala	Val	Arg	Lys	Glu	Lys	Gly
			740					745					750		
Leu	Pro	Ile	Leu	Val	Glu	Leu	Leu	Arg	Ile	Asp	Asn	Asp	Arg	Val	Val
		755					760					765			
Cys	Ala	Val	Ala	Thr	Ala	Leu	Arg	Asn	Met	Ala	Leu	Asp	Val	Arg	Asn
	770					775					780				
Lys	Glu	Leu	Ile	Gly	Lys	Tyr	Ala	Met	Arg	Asp	Leu	Val	His	Arg	Leu
785					790					795					800
Pro	Gly	Gly	Asn	Asn	Ser	Asn	Asn	Thr	Ala	Ser	Lys	Ala	Met	Ser	Asp
			805						810					815	
Asp	Thr	Val	Thr	Ala	Val	Cys	Cys	Thr	Leu	His	Glu	Val	Ile	Thr	Lys
			820					825					830		
Asn	Met	Glu	Asn	Ala	Lys	Ala	Leu	Arg	Asp	Ala	Gly	Gly	Ile	Glu	Lys
		835					840					845			
Leu	Val	Gly	Ile	Ser	Lys	Ser	Lys	Gly	Asp	Lys	His	Ser	Pro	Lys	Val
	850					855					860				
Val	Lys	Ala	Ala	Ser	Gln	Val	Leu	Asn	Ser	Met	Trp	Gln	Tyr	Arg	Asp
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Leu	Arg	Ser	Leu	Tyr	Lys	Lys	Asp	Gly	Trp	Ser	Gln	Tyr	His	Phe	Val
				885					890					895	
Ala	Ser	Ser	Ser	Thr	Ile	Glu	Arg	Asp	Arg	Gln	Arg	Pro	Tyr	Ser	Ser
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		915					920					925			
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945					950					955					960
Gly	Lys	Gly	Glu	His	Thr	Ser	Arg	Lys	Asp	Ala	Met	Thr	Ala	Gln	Asn
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Thr	Gly	Ile	Ser	Thr	Leu	Tyr	Arg	Asn	Ser	Tyr	Gly	Ala	Pro	Ala	Glu
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Asp	Ile	Lys	His	Asn	Gln	Val	Ser	Ala	Gln	Pro	Val	Pro	Gln	Glu	Pro
		995					1000					1005			
Ser	Arg	Lys	Asp	Tyr	Glu	Thr	Tyr	Gln	Pro	Phe	Gln	Asn	Ser	Thr	Arg
	1010					1015					1020				
Asn	Tyr	Asp	Glu	Ser	Phe	Glu	Asp	Gln	Val	His	His	Arg	Pro	Pro	
1025					1030				1035					1040	
Ala	Ser	Glu	Tyr	Thr	Met	His	Leu	Gly	Leu	Lys	Ser	Thr	Gly	Asn	Tyr
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Val	Asp	Phe	Tyr	Ser	Ala	Ala	Arg	Pro	Tyr	Ser	Glu	Leu	Asn	Tyr	Glu
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		1075					1080								

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 <213> Homo Sapien

<400> 4

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Thr	Ala	Thr	Thr	Ile	Leu	Ala	Ser	Val	Lys	Glu	Gln	Glu	Leu	Gln	Phe
		35					40					45			
Gln	Arg	Leu	Thr	Arg	Glu	Leu	Glu	Val	Glu	Arg	Gln	Ile	Val	Ala	Ser
	50					55					60				
Gln	Leu	Glu	Arg	Cys	Arg	Leu	Gly	Ala	Glu	Ser	Pro	Ser	Ile	Ala	Ser
65				70						75				80	
Thr	Ser	Ser	Thr	Glu	Lys	Ser	Phe	Pro	Trp	Arg	Ser	Thr	Asp	Val	Pro
				85				90						95	
Asn	Thr	Gly	Val	Ser	Lys	Pro	Arg	Val	Ser	Asp	Ala	Val	Gln	Pro	Asn
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Asn	Tyr	Leu	Ile	Arg	Thr	Glu	Pro	Glu	Gln	Gly	Thr	Leu	Tyr	Ser	Pro
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Glu	Gln	Thr	Ser	Leu	His	Glu	Ser	Glu	Gly	Ser	Leu	Gly	Asn	Ser	Arg
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Ser	Ser	Thr	Gln	Met	Asn	Ser	Tyr	Ser	Asp	Ser	Gly	Tyr	Gln	Glu	Ala
145					150				155						160

Cys	Ser	Phe	His	Asn	Ser	Gln	Asn	Val	Ser	Lys	Ala	Asp	Asn	Arg	Gln
				165					170					175	
Gln	His	Ser	Phe	Ile	Gly	Ser	Thr	Asn	Asn	His	Val	Val	Arg	Asn	Ser
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Arg	Ala	Glu	Gly	Gln	Thr	Leu	Val	Gln	Pro	Ser	Val	Ala	Asn	Arg	Ala
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Met	Arg	Arg	Val	Ser	Ser	Val	Pro	Ser	Arg	Ala	Gln	Ser	Pro	Ser	Tyr
	210					215					220				
Val	Ile	Ser	Thr	Gly	Val	Ser	Pro	Ser	Arg	Gly	Ser	Leu	Arg	Thr	Ser
225					230					235					240
Leu	Gly	Ser	Gly	Phe	Gly	Ser	Pro	Ser	Val	Thr	Asp	Pro	Arg	Pro	Leu
				245					250					255	
Asn	Pro	Ser	Ala	Tyr	Ser	Ser	Thr	Thr	Leu	Pro	Ala	Ala	Arg	Ala	Ala
			260					265					270		
Ser	Pro	Tyr	Arg	Ser	Gln	Arg	Pro	Ala	Ser	Pro	Thr	Ala	Ile	Arg	Arg
		275					280					285			
Ile	Gly	Ser	Val	Thr	Ser	Arg	Gln	Thr	Ser	Asn	Pro	Asn	Gly	Pro	Thr
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305					310					315					320
Asp	Ala	Gln	Thr	Arg	Val	Ala	Ser	Pro	Ser	Gln	Gly	Gln	Val	Cys	Ser
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Ser	Ser	Pro	Lys	Arg	Ser	Gly	Met	Thr	Ala	Val	Pro	Gln	His	Leu	Gly
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Gln	Tyr	Asp	Ile	Tyr	Glu	Arg	Met	Val	Pro	Pro	Arg	Pro	Asp	Ser	Leu
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Thr	Cys	Leu	Arg	Ser	Ser	Tyr	Ala	Ser	Gln	His	Ser	Gln	Leu	Gly	Gln
385					390					395					400
Asp	Ile	Arg	Ser	Ala	Val	Ser	Pro	Asp	Leu	His	Ile	Thr	Pro	Ile	Tyr
				405					410					415	
Glu	Cys	Arg	Thr	Tyr	Tyr	Tyr	Ser	Pro	Val	Tyr	Arg	Ser	Pro	Asn	His
			420					425					430		
Cys	Ile	Val	Glu	Leu	Gln	Gly	Ser	Gln	Thr	Ala	Leu	Tyr	Arg	Thr	Cys
		435					440					445			
Val	Glu	Gly	Ile	Gly	Asn	Leu	Gln	Arg	Thr	Ser	Ser	Gln	Arg	Ser	Thr
	450				455						460				
Leu	Thr	Tyr	Gln	Arg	Asn	Asn	Tyr	Ala	Leu	Asn	Thr	Thr	Ala	Thr	Tyr
465					470					475					480
Ala	Glu	Pro	Tyr	Arg	Pro	Ile	Gln	Tyr	Arg	Val	Gln	Glu	Cys	Asn	Tyr
				485					490					495	
Asn	Arg	Leu	Gln	His	Ala	Val	Pro	Ala	Asp	Asp	Gly	Thr	Thr	Arg	Ser
			500					505					510		
Pro	Ser	Ile	Asp	Ser	Ile	Gln	Lys	Asp	Pro	Arg	Glu	Phe	Ala	Trp	Arg
		515					520					525			
Asp	Pro	Glu	Leu	Pro	Glu	Val	Ile	His	Met	Leu	Glu	His	Gln	Phe	Phe
	530					535					540				
Ser	Val	Gln	Ala	Asn	Ala	Ala	Ala	Tyr	Leu	Gln	His	Ile	Cys	Phe	Gly
545					550					555					560
Asp	Asn	Lys	Val	Lys	Met	Glu	Val	Cys	Arg	Leu	Cys	Gly	Ile	Lys	His
				565					570					575	
Leu	Val	Asp	Leu	Leu	Asp	His	Arg	Val	Leu	Glu	Val	Gln	Lys	Asn	Ala
			580					585					590		

Cys	Gly	Ala	Leu	Arg	Asn	Leu	Val	Phe	Gly	Lys	Ser	Thr	Asp	Glu	Asn	
		595					600					605				
Lys	Ile	Ala	Met	Lys	Asn	Val	Gly	Gly	Ile	Phe	Ala	Leu	Leu	Arg	Ile	
	610					615					620					
Ile	Arg	Lys	Ser	Ile	Asp	Ala	Glu	Val	Arg	Glu	Ile	Val	Thr	Gly	Val	
625					630					635					640	
Leu	Trp	Asn	Leu	Ser	Ser	Cys	Asp	Ala	Val	Lys	Met	Thr	Ile	Ile	Arg	
				645					650						655	
Asp	Ala	Leu	Ser	Thr	Leu	Thr	Asn	Thr	Val	Ile	Val	Pro	His	Ser	Cys	
			660					665					670			
Trp	Asn	Asn	Ser	Ser	Phe	Asp	Asp	Asp	His	Lys	Ile	Lys	Phe	Gln	Thr	
		675				680						685				
Ser	Leu	Val	Leu	Arg	Asn	Thr	Thr	Gly	Cys	Leu	Arg	Asn	Leu	Thr	Ser	
	690					695					700					
Ala	Gly	Glu	Phe	Ala	Arg	Lys	Gln	Met	Arg	Ser	Cys	Glu	Gly	Leu	Val	
705					710					715					720	
Asp	Ser	Leu	Leu	Tyr	Val	Ile	His	Thr	Cys	Val	Asn	Thr	Ser	Asp	Tyr	
				725					730					735		
Asp	Ser	Lys	Thr	Val	Glu	Asn	Cys	Val	Cys	Thr	Leu	Arg	Asn	Leu	Ser	
			740					745					750			
Tyr	Arg	Leu	Glu	Leu	Glu	Val	Pro	Gln	Ala	Arg	Leu	Leu	Gly	Leu	Asn	
		755				760						765				
Glu	Leu	Asp	Asp	Leu	Leu	Gly	Lys	Glu	Ser	Pro	Ser	Lys	Asp	Ser	Glu	
	770					775					780					
Pro	Ser	Cys	Trp	Gly	Lys	Lys	Lys	Lys	Lys	Lys	Lys	Arg	Thr	Pro	Gln	
785					790						795				800	
Pro	Gln	Glu	Asp	Gln	Trp	Asp	Cys	Val	Gly	Pro	Ile	Pro	Gly	Leu	Ser	
				805					810						815	
Lys	Ser	Pro	Lys	Gly	Val	Glu	Met	Leu	Trp	His	Pro	Ser	Val	Val	Lys	
			820					825					830			
Pro	Tyr	Leu	Thr	Leu	Leu	Ala	Glu	Ser	Ser	Asn	Pro	Ala	Thr	Leu	Glu	
		835				840						845				
Cys	Ser	Ala	Cys	Ser	Leu	Gln	Asn	Leu	Ser	Ala	Ser	Asn	Trp	Lys	Phe	
	850					855					860					
Ala	Ala	Tyr	Ile	Arg	Gly	Gly	Arg	Pro	Lys	Arg	Lys	Cys	Leu	Pro	Ile	
865					870					875					880	
Leu	Val	Glu	Leu	Leu	Arg	Met	Asp	Asn	Asp	Arg	Val	Val	Ser	Ser	Cys	
				885					890						895	
Ala	Thr	Ala	Leu	Arg	Asn	Met	Ala	Leu	Asp	Val	Asn	Lys	Glu	Leu	Ile	
			900					905					910			
Cys	Lys	Tyr	Ala	Met	Arg	Asp	Leu	Val	Asn	Arg	Leu	Pro	Cys	Cys	Asn	
		915				920						925				
Gly	Pro	Ser	Val	Leu	Ser	Asp	Glu	Thr	Met	Ala	Ala	Ile	Cys	Cys	Ala	
	930					935					940					
Leu	His	Glu	Val	Thr	Ser	Lys	Asn	Met	Glu	Asn	Ala	Lys	Ala	Leu	Ala	
945					950					955					960	
Asp	Ser	Gly	Gly	Ile	Glu	Lys	Leu	Val	Asn	Ile	Thr	Lys	Gly	Arg	Gly	
				965					970						975	
Asp	Arg	Ser	Ser	Leu	Lys	Val	Val	Lys	Ala	Ala	Ala	Gln	Val	Leu	Asn	
			980					985					990			
Thr	Leu	Trp	Gln	Tyr	Arg	Asp	Leu	Arg	Ser	Ile	Tyr	Lys	Lys	Asp	Gly	
		995				1000						1005				
Trp	Asn	His	Pro	Ile	Thr	Pro	Val	Ser	Thr	Leu	Glu	Arg	Asp	Arg	Phe	
	1010					1015						1020				

Lys	Ser	His	Pro	Ser	Leu	Ser	Thr	Thr	Asn	Gln	Gln	Met	Ser	Pro	Ile	1025	1030	1035	1040
Ile	Gln	Ser	Val	Gly	Ser	Thr	Ser	Ser	Ser	Pro	Ala	Leu	Leu	Gly	Ile	1045	1050	1055	
Arg	Asp	Pro	Arg	Ser	Glu	Tyr	Asp	Arg	Thr	Gln	Pro	Pro	Met	Gln	Tyr	1060	1065	1070	
Tyr	Asn	Ser	Gln	Gly	Asp	Ala	Thr	His	Lys	Gly	Leu	Tyr	Pro	Gly	Ser	1075	1080	1085	
Ser	Lys	Pro	Ser	Pro	Ile	Tyr	Ile	Ser	Ser	Tyr	Ser	Ser	Pro	Ala	Arg	1090	1095	1100	
Glu	Gln	Asn	Arg	Arg	Leu	Gln	His	Gln	Gln	Leu	Tyr	Tyr	Ser	Gln	Asp	1105	1110	1115	1120
Asp	Ser	Asn	Arg	Lys	Asn	Phe	Asp	Ala	Tyr	Arg	Leu	Tyr	Leu	Gln	Ser	1125	1130	1135	
Pro	His	Ser	Tyr	Glu	Asp	Pro	Tyr	Phe	Asp	Asp	Arg	Val	His	Phe	Pro	1140	1145	1150	
Ala	Ser	Thr	Asp	Tyr	Ser	Thr	Gln	Tyr	Gly	Leu	Lys	Ser	Thr	Thr	Asn	1155	1160	1165	
Tyr	Val	Asp	Phe	Tyr	Ser	Thr	Lys	Arg	Pro	Ser	Tyr	Arg	Ala	Glu	Gln	1170	1175	1180	
Tyr	Pro	Gly	Ser	Pro	Asp	Ser	Trp	Val								1185	1190		